

WHAT IS CLAIMED IS:

1. A weight member for a golf club head, the weight member being made by a WFeNi alloy manufactured by means of a precision casting process, the WFeNi alloy comprising wt 15%-40% of iron, wt 30%-60% of nickel, wt 5 15%-30% of tungsten, wt 1.5%-10.0% of chromium, and wt 0.5%-5.0% of molybdenum.

2. The weight member for a golf club head as claimed in claim 1, wherein the mixture ratio of molten tungsten to molten nickel satisfies a solidus curve as follows:

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$$Y = 1.26X - 38.99\%$$

Wherein Y is the percentage of tungsten by weight, and Y is not less than X.

3. The weight member for a golf club head as claimed in claim 1, further comprising silicon of less than 1.5%.

15 4. The weight member for a golf club head as claimed in claim 1, further comprising at least one component for improving a mechanical property of the weight member.

5. The weight member for a golf club head as claimed in claim 4, wherein said at least one component includes manganese of less than 1.0%, 20 copper of less than 4.0%, vanadium of less than 1.0%, and niobium of less than 1.0%.

6. The weight member for a golf club head as claimed in claim 1,

wherein the WFeNi alloy has a density of  $9.0\text{g/cm}^3$ - $10.5\text{g/cm}^3$ .

7. The weight member for a golf club head as claimed in claim 1,  
wherein the WFeNi alloy has a melting point of  $1400^\circ\text{C}$ - $1500^\circ\text{C}$ .

8. The weight member for a golf club head as claimed in claim 1,  
5 further including at least one trace element.

9. The weight member for a golf club head as claimed in claim 8,  
wherein said at least one trace element includes sulfur of less than 0.1%,  
phosphorus of less than 0.1%, and carbon of less than 0.1%.